end of the snout it forms almost a straight line; its edge is at the keel thrown out into a high shoulder, between which and the body lies the shallow, open, rounded sinus, with a narrow triangular shelf between it and the body-whorl: the lip-edge is thin throughout. *Inner lip* is excavated somewhat deeply and flatly into the thickness of the shell, and runs on to the extreme point of the rather short and oblique pillar, whose inner edge has a long gradual twist. H. 0·37. B. 0·2. Penultimate whorl, height 0·08. Mouth, height 0·2, breadth 0·1.

The classification of this species is not very satisfactory. It may quite well be a *Surcula*; but the stained apex deserves stronger recognition than that place would give it. The sculpture of the apex is strongly suggestive of *Defrancia*; but the shape of the apex is blunter than is characteristic of that group, while the ornamentation is not really reticulate.

It has some general resemblance to *Pleurotoma torquata*, Phil.; but the sculpture is more delicate, and the spire is stumpier than in that species, which also has a sharp-pointed yellow apex with true *Defrancia*-reticulated ornamentation.

On the Nostrils of the Cormorant (*Phalacrocorax carbo*). By Professor J. C. Ewart, M.D. (Communicated by G. J. Romanes, F.R.S., Sec. L.S.)

[Read June 16, 1881.]

Having had my attention directed by Mr. Romanes to the fact that Cormorants during a long flight, and for some time after roosting, hold their heads agape as if panting, and it having been suggested by him that this fact is presumably due to a remarkable condition of the nostril which he had observed, I undertook an anatomical investigation of the latter point with the following results.

The external nostril is a mere slit situated at the end of a shallow superficial groove, which runs backwards along the beak parallel with its lower edge, and lying between its lower and middle third. When a bristle is introduced into the slit, it never

succeeds in forcing a passage into the nasal cavity. If the skin which forms the outer boundary of the slit is carefully reflexed, a groove is exposed which runs from the external slit-like nostril to a narrow canal lined apparently by modified mucous membrane. This canal, when the mucous membrane remains, is externally from $1\frac{1}{2}$ to 2 millim. in diameter; but it rapidly diminishes, and appears to end blindly. In all the specimens examined, however, when the skin has been reflexed, it is possible to pass through this canal, without forming a false passage, a bristle about the size of an ordinary horse-hair, *i. e.* less than 1 millim. in diameter. The bristle is more easily passed in young birds than in old ones: this seems to be due to the osseous canal being relatively larger than in the former. Almost immediately beyond this narrow passage is the large nasal chamber, lying above and internal to the palatine bone, and in free communication with the buccal cavity. The mucous membrane lining the nasal chamber has the same structure and the same nerve-supply as in other aquatic birds.

The nasal region of the Cormorant, and to some extent also in the Gannet (*Sula*), thus differs chiefly from the nasal arrangement in other birds:—1st, in having a very small external nostril, the passage in this slit-like aperture being almost obliterated; 2nd, in having the osseous canal only $1\frac{1}{2}$ to 2 millim. in diameter externally, and scarcely $1\frac{1}{2}$ millim. at its narrowest part; and 3rd, in having the nasal chamber in very free communication with the mouth.

This state of things, it may be presumed, explains the gaping of the bill, in the case of the Cormorant, to obtain air needful to sustain the increased activity of respiration which is produced by the exertion of prolonged flight.